## **Abstract**

Method for measuring the presence or absence of chemical groups, in particular phosphate groups, attached to biological molecules in a sample in which these molecules are tagged with fluorescent markers and these fluorescent markers are activated by means of irradiating the sample with light. The method is characterized by the following steps: a) Use of a fluorescent marker, the fluorescence lifetime of which assumes a different value depending upon the presence or absence of phosphate groups attached to the biomolecule; b) Measurement of the fluorescence lifetime of the fluorescent marker attached to a biomolecule and selected in accordance with Step a); c) Classification of the biomolecules in accordance with the presence or absence of phosphate groups attached to these, based on the different lifetime of each.

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(Fig. 1)